

## Motorized Switch Operator

- Certified to A.N.S.I Test Standards
- Current, Voltage, and Fault Sensing
- Industry Standard Communication Protocols
- Safety Interlock System
- Manual Lock-Out-Tag-Out
- Stainless Steel Enclosure
- Ease of Installation
- Low Maintenance



Proven to be a Reliable Component of the Intelligent Grid for more than 15 years. Inertia Engineering's MSO Delivers Remote Switch Operation, Current, Voltage, and Fault Sensing Intelligence to your SCADA operators. Inertia can help you solve locational awareness and service restoration needs. In addition, Inertia's MSO-SEL option features all the safety and reliability of our standard MSO with the quality and dependability of SEL Protection Relay's embedded system. MSO-SEL meets the SCADA needs of the industry with full programmable automation controlling, sensing, and communication.

## Features:

- Remote or Manual Operation
- Factory Adjusted, Ready to Mount
- Modular & Unitized Construction
- Single Point Lifting Eye for Easier Mounting
- 0.5 to 0.7 Second Operating Speed
- Four Clearance Point Safety:
  - Motor & Interlock Decouple Lamp
  - Motor Interlocking Pin
  - Decoupling Handle
- Isolated Mechanical Drive Components
- Auto-Regulating Humidity Control Heater
- Meets and exceeds all applicable SCADA, NEMA , IEEE and ANSI standards



**ARMORGALV®** (Thermal Diffusion Galvanized) coated ferrous components available for increased corrosion resistance.

**To order or request additional product information please contact us at: 800-791-9997 or [sales@macleanpower.com](mailto:sales@macleanpower.com)**

## Motorized Switch Operator

### Selection Guide:

**Motor Switch Operator = M** → **MDR1SXX-XXXXXXXX**

#### Voltage Class:

Distribution (15.5 kV - 38.0 kV) = D  
Transmission (48.0 kV - 72.5 kV) = T

#### Control Mechanism Type:

Reciprocating Handle (↕) = R

#### Control Rod Type:

Reciprocating (↕)  
1-3/4" Square Fiberglass = 1  
1" Round Fiberglass = 2  
3/4" Galvanized Pipe = 3  
1" IPS Pipe = 4

#### Configuration:

MSO-SEL<sup>1</sup> = SXX  
Standard MSO<sup>1</sup> = MXX

<sup>1</sup> Controller/RTU Type will be determined by factory unless otherwise specified.

<sup>2</sup> Consult factory for any options not listed.

#### Options<sup>2</sup>:

Alternate Power Supply Input (120VAC Std. "A1" = 48 VDC, "A2" = 125 VDC)	= A
Modem / Radio (Specify Make and Model)	= B
Antenna Bulkhead Connector	= C
Fiber Optic Transceiver (Specify Make and Model)	= D
Fiber Optic Splice Tray	= E
Overhead Fault Circuit Indicators (Specify Fault Current, Qty: 3, 6, 9, 12)	= F
Provisions for Current Sensors	= G
Provisions for Voltage Sensors	= H
Provisions for Current / Voltage Sensors	= J
Wet Control Relays (Specify Qty, Control Point, and Control Voltage)	= K
Dry Status Relays (Specify Qty, Status Point)	= L
Control Rod Standoff Bracket	= M
Control Rod Safety Cover	= N
80 W Battery Warming Blanket	= P
Conformal Coating for SEL Relay	= Q
Antenna with 20 ft. Coaxial Cable (Specify Antenna Type, Make, and Model)	= R
Special / Custom Design (Specify)	= S
ArmorGalv® (Thermal Diffusion Galvanizing) Components	= T

### Configurations:



Standard MSO Enclosure  
16" Wide Body



Standard MSO Module



MSO-SEL Enclosure  
28" Wide Body



SEL Interface



Standard MSO



MSO-SEL

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